

AMERICAN RECORDS OF WHALES OF THE GENUS PSEUDORCA.

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Hitherto the only positive record of the occurrence of whales of the genus *Pseudorca* in American waters appears to rest on the type specimen (rostrum and jaws, No. 3679, U.S.N.M.) of Cope's *Orca destructor*,¹ taken off Paita, Peru. A skull (No. 11320, U.S.N.M.) supposed to have come from the northeast coast of North America ("very probably it was originally obtained in Davis Strait") is mentioned in True's Review of the family Delphinidæ.² On the evidence of this specimen the false killer has been regarded as a North American mammal. Search of the museum records has failed to reveal any history other than the entry in the catalogue made by Prof. S. F. Baird on October 15, 1870: "*Orca*. N. E. Coast. Nantucket Athenaeum." So vague a statement—"N. E." might as well mean New England as northeast—can not be regarded as establishing the cosmopolitan genus *Pseudorca* as part of the North American fauna. The whalers of Nantucket did not confine their operations to the "northeast coast"; the mere fact that this skull was regarded by one of them as of enough interest to be deposited in the Athenaeum would of itself suggest an origin more remote.

It is now possible to record three authentic occurrences of *Pseudorca* in North America; also one in the Caribbean Sea.

The South American specimen (No. 20932, U.S.N.M.) is a much-weathered skull and imperfect skeleton from one of the Aves Islands in the Caribbean Sea 70 miles off the coast of Venezuela. It was received in 1883 from Faarup and Gorsira, merchants in Willemstad, Curaçao, through Almont Barnes, U. S. Consul. Mr. Barnes writes under date of May 24, 1883: "I have to-day had boxed and will send you this week some bones of a large animal which were found on one of the Aves Islands, about 70 miles off the coast of Venezuela. There appears to be quite a bone bed there. The Aves Islands are visited at times for guano, and the bones I will send are some brought here with smaller ones for sale merely as 'old bones.'"

¹ Proc. Acad. Nat. Sci. Philadelphia, 1866, p. 293.

² Bull. U. S. Nat. Mus. 36, p. 144, 1889.

Of the North American specimens, one (No. 23282, U.S.N.M.), a weathered skull and imperfect skeleton, was obtained by the U. S. Fish Commission steamer *Albatross* at Pichilingue Bay, the United States coaling station near La Paz, Lower California, on April 29, 1888. The others, No. 218360, U.S.N.M., a skull and nearly complete skeleton (lacking a few vertebrae, a few ribs, and the fore limbs), and No. 218361, U.S.N.M., 13 detached teeth, were recently procured near Princeton, Florida, by Lawrence S. Chubb. In response to my inquiries, Mr. Chubb wrote, September 25, 1918: "Replying to your letter of September 17, will say that I really can give you no information regarding the history of the killer whale. I usually have several hounds and frequently go on hunting trips over the glades or prairies and sometimes as far as the bay. It was on one of these trips that I found the first lot of teeth. A few months later I was again at the bay and found the head and skeleton which I sent you. The skeleton was found about 20 miles below Miami on the shore of Biscayne Bay. At this point the bay is very shallow, so a man can walk out into the water a quarter of a mile, and the bottom is of a lime and coral rock formation. The tide always overflows the mangrove swamps that border on the bay. Farther back beyond the mangrove swamp is the big glade or prairie of marl formation that overflows part of the year. But to return to the killer skeleton. I found three different lots of these teeth, all within a half mile of each other, and a mile south of the skeleton. In getting the skeleton for the museum I searched thoroughly and feel sure that I procured all of both large and small bones [such small parts as the detached nasals were among those found], but nothing resembling flippers were in evidence. I can not account for their absence."

It seems probable that at least four individuals of *Pseudorca* were stranded on the shore of Biscayne Bay. The teeth sent by Mr. Chubb, however, do not certainly indicate more than two in addition to the animal whose skeleton was found. The 27 teeth belonging in the skull are slightly worn, each with a flat area, usually 3-5 mm. in diameter, at the apex of the crown. Of the 13 separate teeth, three differ from all the others in the broader, more abruptly truncate form of the base. They appear to be almost unworn at the tip, but the enamel is somewhat imperfect. The other separate teeth represent a much more advanced condition of wear. In all but two, more than half of the crown is gone, and in four the enamel covered portion of the tooth has been eliminated. It is possible that six of these ten teeth represent one individual and four represent another, but I do not feel convinced that such is the case.

Measurements of skulls of *Pseudorca*.

Locality.....	Peru.	Lower Calif- ornia.	Vene- zuela.	Florida.	"N.E. Coast."	No history.
Number.....	3679	23282	20932	218360	11320	219325
Condylbasal length.....		600	540	590	620	595
Basal length.....		590	585	570	610	580
Occipital crest to tip of beak.....		510	490	485	545	535
Rostrum.....		278	270	270	300	295
Tip of beak to nares.....		360	345	343	385	380
Posterior tooth to apex of maxillary notch.....		60	50	54	63	58
Breadth of beak between maxillary notches.....		195	180±	187	210	177
Breadth of beak at level of posterior tooth.....	225	188	190±	194	215	174
Greatest breadth of single intermaxillary.....	65	.....	51	54	59	46
Least breadth of single intermaxillary.....	55	.....	51	48	57	50
Interorbital breadth.....		323	290±	304	338	300
Glenoid breadth.....		362	327	348	377	352
Depth of braincase behind nares.....		193	183	197	205	190
Occipital depth.....		228	210	216	223	218
Depth of rostrum at level of posterior tooth.....	57	.....	43	49	56	48
Depth of rostrum at middle of tooth row.....	47	.....	38	42	45	43
Mandible.....	525	.....	.....	465	.....	495
Coronoid-angular depth.....	150	.....	.....	133	.....	137
Depth of mandible at level of posterior tooth.....	67	.....	.....	60	.....	60
Depth of mandible at middle of symphysis.....	46	.....	.....	33.5	.....	36
Maxillary tooth row (alveoli).....	225	.....	220	227	230	225
Mandibular tooth row (alveoli).....	230	.....	.....	210	.....	225
Sixth upper tooth:						
Greatest height.....				84.5	92±	.....
Greatest diameter.....				22.6	23	.....
Height from base of enamel.....	36	.....	.....	20.4	27	.....
Diameter at base of enamel.....	{ 22 by 25 }	.....	.....	15	17.6	.....
				14.4	19	.....

EXPLANATION OF PLATES.

All figures about one-fourth natural length.

PLATE 27.

Pseudorca crassidens. Florida. Dorsal view of skull.

PLATE 28.

Pseudorca crassidens. Florida. Ventral view of skull.

PLATE 29.

Pseudorca crassidens. Florida. Lateral view of skull.

PLATE 30.

Pseudorca crassidens. Florida. Mandible from above.

PLATE 31.

Pseudorca crassidens. Florida. Mandible from side.